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NOTICE OF ALLOWANCE AND FEE(S) DUE

65913 7590 06/23/2009

NXP, B.V. NXP INTELLECTUAL PROPERTY & LICENSING M/S41-SJ 1109 MCKAY DRIVE SAN JOSE, CA 95131

| EXAMINER | | | | |
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| LE, TOAN M | | | | |
| ART UNIT PAPER NUMBER | | | | |

2863 DATE MAILED: 06/23/2009

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|---------------------------|---------------------|------------------|
| 10/524.458 | 02/10/2005 | Thomas Franciscus Waavers | NL02 0749 US | 6330 |

TITLE OF INVENTION: MODULE, ELECTRONIC DEVICE AND EVALUATION TOOL

| APPLN. TYPE | SMALL ENTITY | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL FEE(S) DUE | DATE DUE |
|----------------|--------------|---------------|---------------------|----------------------|------------------|------------|
| nonprovisional | NO | \$1510 | \$300 | \$0 | \$1810 | 09/23/2009 |

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE

Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or <u>Fax</u> (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where ar in m

| appropriate. All further indicated unless correct maintenance fee notifica CURRENT CORRESPOND | Not Fee pap | fication of maintenance fees will be mailed to the current correspondence address as a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission. | | | | | |
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| 10/524,458 | 02/10/2005 | r | Thomas Franciscus Waaye | ers | ľ | NL02 0749 US | 6330 |
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| nonprovisional | NO | \$1510 | \$300 | \$0 | | \$1810 | 09/23/2009 |
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| "Fee Address" ind PTO/SB/47; Rev 03-(Number is required. 3. ASSIGNEE NAME A PLEASE NOTE: Un | ND RESIDENCE DATA less an assignee is ident th in 37 CFR 3.11. Comp | "Indication form led. Use of a Customer A TO BE PRINTED ON ' ified below, no assignee | (1) the names of up to or agents OR, alternati (2) the name of a sing registered attorney or 2 registered patent atte listed, no name will be THE PATENT (print or ty data will appear on the pT a substitute for filing an (B) RESIDENCE: (CITY | vely, le firm (having as a agent) and the namorneys or agents. If printed. pe) patent. If an assign assignment. | n members of up no nam | er a 2 o to e is 3 | cument has been filed for |
| Please check the appropri | riate assignee category or | categories (will not be pr | rinted on the patent): | Individual 🗖 C | orporati | on or other private grou | p entity Government |
| | No small entity discount p | 4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above) ☐ A check is enclosed. ☐ Payment by credit card. Form PTO-2038 is attached. ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number (enclose an extra copy of this form). | | | | | |
| _ 。 . | ns SMALL ENTITY statu | · · · · · · · · · · · · · · · · · · · | ☐ b. Applicant is no lon | ger claiming SMA | LL ENT | TITY status. See 37 CF. | R 1.27(g)(2). |
| NOTE: The Issue Fee an interest as shown by the | nd Publication Fee (if req records of the United Sta | uired) will not be accepte tes Patent and Trademark | ed from anyone other than to Office. | the applicant; a reg | istered a | attorney or agent; or the | assignee or other party in |
| Authorized Signature | | | | Date | | | |
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| This collection of inform an application. Confiden submitting the complete this form and/or suggest Box 1450, Alexandria, V Alexandria, Virginia 223 | itiality is governed by 35 d application form to the ions for reducing this bu. Virginia 22313-1450. DC | CFR 1.311. The informatic U.S.C. 122 and 37 CFR USPTO. Time will vary rden, should be sent to the ONOT SEND FEES OR | on is required to obtain or 1.14. This collection is es depending upon the indi- te Chief Information Offic COMPLETED FORMS T | retain a benefit by timated to take 12 vidual case. Any co er, U.S. Patent and O THIS ADDRES: | the publ minutes omment Tradem S. SENI | ic which is to file (and to complete, including s on the amount of tim nark Office, U.S. Depan O TO: Commissioner fo | by the USPTO to process) gathering, preparing, and e you require to complete tment of Commerce, P.O. or Patents, P.O. Box 1450, |

PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.

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| | UAL PROPERTY & I | LICENSING | ART UNIT | PAPER NUMBER |
| M/S41-SJ 1109 MCKAY DR | IVE | | 2863 | |
| SAN JOSE, CA 95 | | | DATE MAILED: 06/23/200 | 9 |

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 53 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 53 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

| | Application No. | Applicant(s) |
|---|---|---|
| Notice of Allowability | 10/524,458 | WAAYERS, THOMAS FRANCISCUS |
| nous of Amonasmity | Examiner | Art Unit |
| | TOAN M. LE | 2863 |
| The MAILING DATE of this communication appeal claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIOF the Office or upon petition by the applicant. See 37 CFR 1.313 | (OR REMAINS) CLOSED in this ap or other appropriate communication GHTS. This application is subject to | plication. If not included n will be mailed in due course. THIS |
| 1. This communication is responsive to <u>4/6/09</u> . | | |
| 2. ☑ The allowed claim(s) is/are <u>1-16</u> . | | |
| 3. Acknowledgment is made of a claim for foreign priority una) All b) Some* c) None of the: 1. Certified copies of the priority documents have 2. Certified copies of the priority documents have 3. Copies of the certified copies of the priority documents nave International Bureau (PCT Rule 17.2(a)). * Certified copies not received: Applicant has THREE MONTHS FROM THE "MAILING DATE" noted below. Failure to timely comply will result in ABANDONM THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. 4. A SUBSTITUTE OATH OR DECLARATION must be submit INFORMAL PATENT APPLICATION (PTO-152) which give 5. CORRECTED DRAWINGS (as "replacement sheets") must (a) including changes required by the Notice of Draftspers 1) hereto or 2) to Paper No./Mail Date (b) including changes required by the attached Examiner's Paper No./Mail Date Identifying indicia such as the application number (see 37 CFR 1. each sheet. Replacement sheet(s) should be labeled as such in the deposit attached Examiner's comment regarding REQUIREMENT in the deposit part of the deposit attached Examiner's comment regarding REQUIREMENT in the deposit attached Examiner's comment regarding REQUIREMENT in the deposit part of the deposit part of the priority document sheet in the deposit part of the priority document sheet in the deposit part of the priority document sheet in the deposit part of the priority document sheet in the deposit part of the priority document sheet in the priority | been received. been received in Application No cuments have been received in this of this communication to file a reply ENT of this application. itted. Note the attached EXAMINER as reason(s) why the oath or declara at be submitted. on's Patent Drawing Review (PTO- as Amendment / Comment or in the Comment or in the Comment of BIOLOGICAL MATERIAL resuments. | national stage application from the complying with the requirements I'S AMENDMENT or NOTICE OF ation is deficient. 1948) attached Office action of the back) of d). must be submitted. Note the |
| Attachment(s) 1. ☑ Notice of References Cited (PTO-892) 2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948) 3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date 4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material | 5. ☐ Notice of Informal F 6. ☐ Interview Summary Paper No./Mail Da 7. ☒ Examiner's Amendr 8. ☒ Examiner's Stateme 9. ☐ Other | (PTO-413), te . |

DETAILED ACTION

EXAMINER'S AMENDMENT

Authorization for this examiner's amendment was given in a telephone interview with Bradley Barinsky in lieu of Robert Crawford on 6/9/2009.

Please amend the Abstract as follows:

A module has test controller for evaluating a functional block. The test controller includes a first register coupled between an input pin and an output pin from a plurality of pins and a second register coupled to the first register for capturing an update of the content of the first register responsive to an update signal from a decoder. The second register is further arranged to generate evaluation control signal. The test controller further includes dedicated control circuitry including a plurality of logic gates and a first logic gate. The plurality of logic gates is arranged to decode the content of the first register and provide the first logic gate with a resulting gating signal for blocking the update of the second register. Consequently, the dedicated control circuitry is able to prevent undesired changes in the module during an evaluation mode of for instance another module.

Please amend claim 7 as following:

- 7. (Currently amended) A module comprising a functional block and a test controller for controlling the functional block in an evaluation mode of the module, the test controller comprising:
 - a plurality of pins including an input and an output pin;
- a first register coupled between the input pin and the output pin for receiving a bit pattern via the input pin and outputting the bit pattern via the output pin; and

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a second register coupled to the first register for capturing the bit pattern responsive to an update signal;

dedicated control circuitry for blocking the update signal responsive to the bit pattern;

a first logic circuit for receiving the update signal and for receiving the bit pattern and coupled to the second register;

a multiplexer having a first input, a second input, an output and a control terminal coupled to an output of the second register;

a first further register coupled between the input pin and the first input of the multiplexer;

a second further register being responsive to the update signal, the second further register having at least an input coupled to the first further register; and a conductor coupled between the input pin and the second input of the multiplexer;

the first register being coupled between the output of the multiplexer and the output pin; and

the second input of the first logic gate being coupled to the first register via the second register.

Please amend claim 10 as following:

10. (Currently Amended) A module as claimed in claim 7, characterized in that the dedicated control circuitry further comprises a plurality of logic gates being responsive to the bit pattern in the second register, the plurality of logic gates having their inputs coupled to the second further register and having at least an output coupled to the control terminal of the multiplexer.

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Allowable Subject Matter

Claims 1-16 are allowed.

Claims 1-16 are allowable over the prior art of record, none of the prior art whether together singularly or in combination to teach the claimed combination as recited. The closest reference No. 6,499,124 does not teach or suggest the improvement of the instant application comprising a <u>dedicated control circuitry</u> for <u>blocking the update signal</u> responsive to a bit pattern and a no-update <u>bypass register</u> configured/coupled with a multiplexer as cited in independent claims 1, 4, 11, and 13; or

a <u>dedicated control circuitry</u> for <u>blocking the update signal</u> responsive to a bit pattern; a <u>first logic circuit</u> for receiving the <u>updated signal</u> for receiving the bit pattern and coupled to the second register; a multiplexer having a first input, a second input, an output and a control terminal coupled to an output of the second register; <u>a first further register</u> coupled between the input pin and the first input of a further multiplexer; <u>a second further register</u> being <u>responsive to the update signal</u>, the second further register having at least an input coupled to the first further register; and <u>a conductor</u> coupled between the input pin and the second input of the further multiplexer; the first register being coupled between the output of the multiplexer and the output pin; and the second input of the first logic gate being coupled to the first register via the second register as cited in independent claim 7.

Instead reference '124 teaches a Boundary-Scan architecture that prevents would-be pirates from replicating the logic of the IC by blocking data that is shifted along the Boundary-Scan chain.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TOAN M. LE whose telephone number is (571)272-2276. The examiner can normally be reached on Monday through Friday from 9:00 A.M. to 5:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on (571) 272-2312. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael P. Nghiem/ Primary Examiner, GAU 2863 Application/Control Number: 10/524,458

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June 9, 2009